

AMENDMENT

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A system of carrier transport traffic management, comprising:

- a fabrication tool;
- a host computer, connected to the fabrication tool, configured to acquire an available ~~number~~ capacity of control jobs, process jobs or internal buffer sections for the fabrication tool upon detecting a loadport of the fabrication tool is available; and
- a material transport system, connected to the host computer, configured to receive the available ~~number~~ capacity of the control jobs, process jobs or internal buffer sections corresponding to the fabrication tool, acquire a carrier identity corresponding to a carrier, acquire a required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections corresponding to the carrier, and issue a load command to ~~an automated material handling system (AMHS)~~ the transport system to transport the carrier to the fabrication tool if the available ~~number~~ capacity of the control jobs, process jobs or internal buffer sections

exceeds or equals to the required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections.

2. (Currently Amended) The system of claim 1 wherein the material transport system further sends an advisory to an operator if the available ~~number~~ capacity of the control jobs, process jobs or internal buffer sections is less than the required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections.

3. (Original) The system of claim 1 wherein the fabrication tool provides a plurality of services compliant to a 300mm semiconductor equipment and material international (SEMI) standard.

4. (Previously Presented) The system of claim 1 wherein the carrier identity is acquired from an operator.

5-8. (Cancelled)

9. (Currently Amended) The system of claim 1 wherein the ~~[[the]]~~ available ~~number~~ capacity of control jobs are acquired by executing ~~a 300mm semiconductor equipment and material international (SEMI) E94 service~~ a software service resident in the fabrication tool, and each control job manages process job sequence of a number of the process jobs.

10. (Currently Amended) The system of claim 1 wherein ~~[[the]]~~ the available-~~number~~ capacity of control process jobs are acquired by executing a ~~300mm semiconductor equipment and material international (SEMI) E40 service~~ a software service resident in the fabrication tool, and each process job is provided for association with at least one wafer lot and to specify a particular recipe.

11. (Currently Amended) The system of claim 1 wherein the internal buffer sections ~~are divided into~~ respectively correspond to one of three categories, production, side dummy and fill dummy~~[[and]]~~, the available-~~number~~ capacity of internal buffer sections with the corresponding categories are acquired by executing a ~~300mm semiconductor equipment and material international (SEMI) E87 service~~ a software service resident in the fabrication tool, and the internal buffer sections will intake, process and store the carrier.

12. (Currently Amended) A method of carrier transport traffic management, the method comprising using a computer to perform the steps of:

- receiving an available-~~number~~ capacity of control jobs, process jobs or internal buffer sections corresponding to a fabrication tool from a host computer;
- acquiring a carrier identity corresponding to a carrier;
- acquiring a required-~~number~~ capacity of the control jobs, process jobs or internal buffer sections corresponding to the carrier identity; and
- issuing a load command to ~~an automated material handling system (AMHS)~~ a transport system to transport the carrier to the fabrication tool if the available-~~number~~ capacity of the control jobs, process jobs or internal buffer sections exceeds or

equals to the required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections.

13. (Currently Amended) The method of claim 12 further comprising a step of sending an advisory to an operator if the available ~~number~~ capacity of the control jobs, process jobs or internal buffer sections is less than the required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections.

14. (Original) The method of claim 12 wherein the fabrication tool provides a plurality of services compliant to a 300mm semiconductor equipment and material international (SEMI) standard.

15. (Previously Presented) The method of claim 12 wherein the carrier identity is acquired from an operator.

16-19. (Cancelled)

20. (Currently Amended) The method of claim 12 wherein ~~[[the]]~~ the available ~~number~~ capacity of control jobs are acquired by executing ~~a 300mm semiconductor equipment and material international (SEMI) E94 service~~ a software service resident in the fabrication tool, and each control job manages process job sequence of a number of the process jobs.

21. (Currently Amended) The method of claim 12 wherein the available-~~number~~
~~capacity of control process jobs~~ are acquired by executing a ~~300mm semiconductor equipment~~
~~and material international (SEMI) E40 service~~ a software service resident in the fabrication
tool, and each process job is provided for association with at least one wafer lot and to specify
a particular recipe.

22. (Currently Amended) The method of claim 12 wherein the internal buffer
~~sections are divided into~~ respectively correspond to one of three categories, production, side
dummy and fill dummy[[and]], the available-~~number~~ capacity of internal buffer sections
with the corresponding categories are acquired by executing a ~~300mm semiconductor~~
~~equipment and material international (SEMI) E87 service~~ a software service resident in the
fabrication tool, and the internal buffer sections will intake, process and store the carrier.

23. (Currently Amended) A machine-readable storage medium for storing a computer
program which when executed performs a method of carrier transport traffic management, the
method comprising the steps of:

receiving an available-~~number~~ capacity of control jobs, process jobs or internal buffer

sections corresponding to a fabrication tool from a host computer;

acquiring a carrier identity corresponding to a carrier;

acquiring a required-~~number~~ capacity of the control jobs, process jobs or internal buffer

sections corresponding to the carrier identity; and

issuing a load command to ~~an automated material handling system (AMHS)~~ a transport
system to transport the carrier to the fabrication tool if the available-~~number~~

capacity of the control jobs, process jobs or internal buffer sections exceeds or equals to the required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections.

24. (Currently Amended) The machine-readable storage medium of claim 23, wherein the method further comprises a step of sending an advisory to an operator if the available ~~number~~ capacity of the control jobs, process jobs or internal buffer sections is less than the required ~~number~~ capacity of the control jobs, process jobs or internal buffer sections.

25. (Cancelled)

26. (Previously Presented) The computer-readable storage medium of claim 23 wherein the carrier identity is acquired from an operator.

27-30. (Cancelled)

31. (Currently Amended) The computer-readable storage medium of claim 23 wherein [[the]] the available ~~number~~ capacity of control jobs are acquired by executing ~~a 300mm semiconductor equipment and material international (SEMI) E94 service~~ a software service resident in the fabrication tool, and each control job manages process job sequence of a number of the process jobs.

32. (Currently Amended) The computer-readable storage medium of claim 23, wherein the available ~~number~~ capacity of ~~control~~ process jobs are acquired by executing a ~~300mm semiconductor equipment and material international (SEMI) E40 service~~ a software service resident in the fabrication tool, and each process job is provided for association with at least one wafer lot and to specify a particular recipe.

33. (Currently Amended) The computer-readable storage medium of claim 23, wherein the internal buffer sections ~~are divided into~~ respectively correspond to one of three categories, production, side dummy and fill dummy[[and]], the available ~~number~~ capacity of internal buffer sections with the corresponding categories are acquired by executing a ~~300mm semiconductor equipment and material international (SEMI) E87 service~~ a software service resident in the fabrication tool, and the internal buffer sections will intake, process and store the carrier.